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## Australian Podiatry Council Conference 2017

### ABSTRACT SUBMISSION

**Title:** What makes feet so damn insensitive? A systematic review of risk factors for the development of diabetes-related peripheral neuropathy

**Abstract No.** 0080

**Title** What makes feet so damn insensitive? A systematic review of risk factors for the development of diabetes-related peripheral neuropathy

#### Objectives

Diabetes-related peripheral neuropathy (DPN) is a well-established risk factor for diabetes-related foot ulceration. Therefore, the systematic identification of risk factors for DPN seems like an important step in developing preventative strategies for foot ulceration. The objective of this systematic review was to identify risk factors leading to diabetes-related peripheral neuropathy.

#### Method

A search was conducted of the electronic databases PubMed, Embase, CINAHL via EBSCOhost and Ovid (including MEDLINE) up to 10 November 2016. Longitudinal studies with adult participants with either type 1, or type 2 diabetes were included. Outcome measures were either probable or confirmed diabetes related peripheral neuropathy using two criteria at minimum, of clinical signs or symptoms. Studies were selected by two independent reviewers.

#### Results

Of 8,709 potentially relevant studies, 40 met the inclusion criteria. Five studies were randomised controlled trials and 35 observational studies. Many of the included studies were heterogeneous due to their defined outcome of diabetes-related peripheral neuropathy. Sixteen of the included papers identified elevated blood glucose levels as a risk factor for diabetes-related peripheral neuropathy. Other risk factors identified were: duration of diabetes, height, presence of other microvascular complications, smoking and cardiovascular risk factors such as low HDL cholesterol, high triglycerides, and hypertension, biomarkers of oxidative stress, myelinated nerve fibre density and gene polymorphisms.

#### Conclusions

Multiple risk factors have been identified in this systematic review leading to the development of diabetes-related peripheral neuropathy. It is recommended that the inclusion of these risk factors in a clinical tool will assist preventative strategies for diabetes-related neuropathic foot ulceration.

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**Registration** Confirm

<b>Categories</b>	Diabetes
<b>Presentation</b>	Oral presentation only
<b>Abstract permission</b>	Yes
<b>PowerPoint permission</b>	Yes
<b>Award</b>	Best new investigator

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